

Van Cleave's "Acanthocephala of the Canadian Arctic Expedition, 1913-1918."¹—In his paper Dr. Van Cleave states that so far as he is aware there are no published records of the occurrence of Acanthocephala in the arctic fauna of North America. "Species described by some of the early explorers have become the objects of much conjecture on the part of present-day investigators. Under the name *Sipunculus lendix*, Phipps (1774) described from an Eider Duck what is obviously a species of Acanthocephala. Soon afterward, Goeza (1782: 141) called attention to the fact that this species of Phipps is in reality an acanthocephalan. Since that time various investigators have endeavored to determine the correct disposition of this species within the group, but all of their attempts appear to be mere guesses ostensibly fostered by the desire to distribute all of the species names into groups which would at least give the appearance of a completely worked out synonymy. . . .

"Three species of fresh-water fishes, two marine fishes, and one bird constitute the entire list of acanthocephalan hosts recorded by the expedition. . . . A new species of the genus *Filicollis* [*Filicollis arcticus* Van Cleave, type host, King Eider, *Somateria spectabilis* (Linnaeus), in intestine, collected at Bernard harbour, Dolphin and Union strait, Northwest Territories, June 16, 1916; cotypes deposited in the Victoria Memorial Museum, Ottawa, Canada, and in the collection of the author at Urbana, Illinois] from the King Eider stands intermediate between the European and the North American species of this genus, but in some respects shows much closer relationship with the previously described American species. . . . A comparison of *F. arcticus* with other known members of the same genus discloses some interesting facts regarding the geographical distribution of the members of this genus. *F. anatis* is the common European representative of *Filicollis* while *F. botulus* occurs in the Eiders in the United States. *Filicollis arcticus*, n. sp., differs in definite manner from both the previously mentioned species but shows a distinctly closer relationship to *F. botulus*. . . . In *F. botulus* there are but sixteen longitudinal rows of hooks (on the proboscis) while for *F. arcticus* the writer has found twenty-two. Both of these American species lack the spherical enlargement of the proboscis characteristic of the European species.

"The King Eider, the host of *F. arcticus*, though circumpolar in its distribution, evidently does not carry the same acanthocephalan infestation throughout its range. From the West Tajmirland peninsula, von Linstow (1905: 3). [Helminthen der Russischen Polar-Expedition 1900-1903. Mem. Acad. Imp. Sc. St. Petersbourg, Serie 8, Class Physico-Math., 18: 1-17] described *Echinorhynchus pupa* from this same host

¹Report of the Canadian Arctic Expedition, 1913-18, Vol. IX: Annelids, Parasitic Worms, Protozoans, etc. Part E: Acanthocephala. By H. J. Van Cleave. Southern Party—1913-16. Ottawa: J. de Labroquerie Tache, Printer to the King's Most Excellent Majesty. 1920. Issued April 7, 1920. pp. 1-11C.

species. Unfortunately his description and his figures of this species fail to give a full enough account of the structure to enable anyone to place it with certainty in any of the genera recognized in modern taxonomy of the Acanthocephala. . . . No evidence is presented, either in his description or in his figure, which would make it seem probable that his species belongs to the genus *Filicollis*. Thus on opposite sides of the arctic circle the King Eider apparently is parasitized by Acanthocephala representing two distinct genera."—R. M. A.

Economic Ornithology in Recent Entomological Publications.—

A few recent entomological contributions contain noteworthy references to bird enemies; they relate to the following insects:

Round-headed apple-tree borer (*Saperda candida*): Losses from this insect have increased with the development of apple growing, and at present the species is a primary pest throughout the region east of the Rocky Mountains. Mr. Fred E. Brooks, author of a comprehensive bulletin¹ on this borer says: "Probably no other economic insect of equal importance has had so few natural enemies recorded definitely and specifically as has the round-headed apple-tree borer," and that personally he has never found any evidence of hymenopterous parasites. However, he goes on to say that:

"While the control effect of parasites and predacious insects on this borer is negligible, woodpeckers play an important part in holding it in check. Wherever the writer has collected specimens or made observations in borer-infested localities the work of these birds has always been in evidence. Soon after the borers hatch the woodpeckers begin to find them beneath the thin covering of bark and thereafter the birds drill for them as long as they are in the tree. In several orchards where counts were made from 50 to 75 per cent of the borers had been destroyed in this way.

"During October, 1915, 24 young borers were collected and planted in furrows gouged out of the wood beneath loosened tongues of bark on the trunk of an apple tree. A week later, when the tree was revisited for the purpose of putting a wire screen around the trunk to protect the borers from birds, woodpeckers had punctured every tongue of bark and removed the borers from beneath. Not one had escaped. In May of the same year, while pupae were being collected from an orchard, a total of 11 pupal cells were found and from every one the occupant had been removed by woodpeckers. In another case 21 pupal cells were found, 19 of which had been opened by woodpeckers and the insects removed." (pp. 29-30.)

Ribbed pine-borer (*Rhagium lineatum*): While not a serious insect pest, this species materially hastens the death and decay of injured pines. A

¹ Bul. 847, U. S. Dept. Agr. 1920.